

REMARKS

Reconsideration of the above-identified patent application in view of the present amendment and the following remarks is respectfully requested.

This amendment amends claim 40, cancels claim 42, and adds new claims 43-46. It is respectfully acknowledged that claims 18, 19, 21, 40, and 41 have been indicated as allowable and claims 27 and 29-32 have been allowed.

The Office Action of June 16, 2003 provisionally rejected claim 1 under the judicially created doctrine of obviousness-type double patenting over claim 1 of copending application serial number 09/818,129. Application serial number 09/818,129 issued on September 16, 2003 as U.S. Patent No. 6,619,692. A Terminal Disclaimer is enclosed in which the terminal part of the statutory term of any patent granted on this application that would extend beyond the expiration date of the statutory term of U.S. Patent No. 6,619,692 is disclaimed.

Claim 1 stands rejected as anticipated under 35 U.S.C. §102(b) by Thorn, U.S. Patent No. 4,928,991. This rejection is respectfully traversed.

Anticipation requires a single prior art reference that discloses each element of the claim. W.L. Gore & Associates v. Garlock, Inc., 220 UPSQ 303, 313 (Fed. Cir. 1983) cert. denied 469 U.S. 851 (1984). For a reference to anticipate a claim, "[t]here must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." Scripps

Clinic & Research Foundation v. Genentech Inc., 18 USPQ2d  
1001, 1010 (Fed. Cir. 1991).

Claim 1 recites a microelectromechanical system device (MEMS device) energizable to cause actuation of a protection device. Thorn fails to teach or suggest a microelectromechanical system device (MEMS device). On page 6 of the Amendment filed March 24, 2003, "microelectromechanical systems (MEMS)" were defined as meaning "integrated micro devices combining electrical and mechanical components that are fabricated using integrated circuit batch processing techniques." (citing "So what are these MEMS?, MEMS Overview from MCNC, at [www.people.cornell.edu/pages/akt1/what.html](http://www.people.cornell.edu/pages/akt1/what.html)). In rejecting claim 1 as anticipated by Thorn, the Office Action states that the printed circuit board 24 of Thorn forms the micro and electrical components and the gas cartridges 12 form the mechanical components. However, this interpretation of Thorn fails to acknowledge that the above definition and the plain meaning of the term "microelectromechanical system (MEMS)" to one of ordinary skill in the art require a micro device combining electrical and mechanical components. Thus, in a microelectromechanical system (MEMS), in addition to the electrical component of the device being micro, the mechanical component of the device is also micro and is integrated with the electrical component of the device. One of ordinary skill in the art would not consider the gas cartridges 12 of Thorn to be micro-mechanical components that are integrated with the printed circuit board 24.

Moreover, the Office Action further states that the printed circuit board 24 of Thorn is an integrated circuit made in batches and, thus, reads on the above definition. Again, this interpretation fails to acknowledge that the above definition of a "microelectromechanical system (MEMS)" recites that the entire micro device, which includes the integrated electrical and mechanical components, is fabricated using integrated circuit batch processing techniques. Thorn fails to teach or suggest that the gas cartridges 12 are formed by integrated circuit batch technology. Furthermore, one of ordinary skill in the art, with reference to Thorn, would recognize that the gas cartridges 12 are not formed using integrated circuit batch technology. Therefore, Thorn fails to teach or suggest a microelectromechanical system (MEMS) as understood by one of ordinary skill in the art. Faigle et al., U.S. Patent No. 5,460,405, also fails to teach or suggest a microelectromechanical system (MEMS). Therefore, allowance of claim 1 is respectfully requested.

Claims 2-14 and new claims 43-46 depend from claim 1 and are allowable for at least the same reasons as claim 1. Additionally, claims 2-14 and claims 43-46 are allowable for the specific limitations of each claim.

Specifically, claims 4 and 5 recite a plurality of individually actuatable MEMS devices. Thorn and Faigle et al. both fail to teach or suggest a MEMS device. Furthermore, Thorn and Faigle et al. both fail to teach or suggest a plurality of individually actuatable MEMS devices. Therefore, allowance of claims 4 and 5 are respectfully requested.

Claim 43 recites that the microelectromechanical system device (MEMS device) has a length of approximately one half of an inch and a width of approximately one half of an inch. Thorn and Faigle et al. fail to teach or suggest this feature of claim 43. Therefore, allowance of claim 43 is respectfully requested.

Claim 44 recites that the microelectromechanical system device (MEMS device) includes a plurality of plenums for storing an energizable fluid source. Claim 44 further recites that each of the plurality of plenums has a depth of up to ten millimeters. Thorn and Faigle et al. fail to teach or suggest these features of claim 44. Therefore, allowance of claim 44 is respectfully requested.

Claim 45 depends from claim 44 and further recites that each of the plurality of plenums is cylindrical and has a diameter of up to 1.4 millimeters. Thorn and Faigle et al. fail to teach or suggest this feature of claim 45. Therefore, allowance of claim 45 is respectfully requested.

Claim 46 recites that the apparatus comprises a plurality of microelectromechanical system device (MEMS device). Claim 46 also recites that each one of the plurality of microelectromechanical system device (MEMS device) includes a plurality of plenums for storing an energizable fluid source. Thorn and Faigle et al. fail to teach or suggest this feature of claim 46. Therefore, allowance of claim 46 is respectfully requested.

With regard to independent claim 15, the Office Action provisionally rejected claims 15 and 16 under the judicially

created doctrine of obviousness-type double patenting over claims 10 and 12 of copending application serial number 09/756,409. The issue fee for copending application serial number 09/756,409 was paid on August 6, 2003. During prosecution of serial number 09/756,409, claim 10 was cancelled and claim 12 was amended to depend from claim 6. Since claim 10 of application number 09/756,409 was cancelled, the provisional obviousness-type double patenting rejection is rendered moot. Therefore, allowance of claims 15 and 16 is respectfully requested.

Claims 17-22 depend on claim 15 and are allowable for at least the same reasons as claim 15. Therefore, allowance of claims 17-22 is respectfully requested.

The amendment to claim 40 rewrites claim 40 in independent form. The Office Action indicated that claim 40 was allowable if rewritten in independent form. Therefore, allowance of claim 40 is respectfully requested.

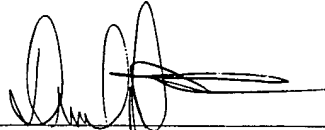
Claim 41 depends from claim 40 and is allowable for at least the same reasons as claim 40. Therefore, allowance of claim 41 is also respectfully requested.

In view of the foregoing, it is respectfully submitted that the above-identified patent application is in condition for allowance, and allowance of the above-identified patent application is respectfully requested.

Serial No. 09/755,704

Please charge any deficiency or credit any overpayment in  
the fees for this amendment to our Deposit Account  
No. 20-0090.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Daniel J. Whitman', is written over a horizontal line.

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